### Remarks

This REPLY is in response to a Office Action mailed October 13, 2009. Claims 1-6 and 8-23 are pending and stand rejected as obvious.

# I. Acknowledgement of Priority

Applicants thank the Examiner for acknowledging the priority to the previously filed United States Provisional Application No: 60/403,756.

### II. Obviousness Under 35 U.S.C. 103

To sustain a rejection under 35 U.S.C. 103, under KSR v. Teleflex and Graham v. John Deere, the following analysis must be made.

- 1. Determine the scope of the prior art;
- Determine the differences between the scope of the prior art and the invention as claimed;
- 3. Determine the level of ordinary skill in the art.

Applicants understand that the scope of the prior art is exemplified by Sharpe, Kasabov, Kittler, Krogh, and Tsumoto.

Applicants further understand that the level of ordinary skill is reflected by Sharpe, Kasabov, Kittler, Krogh and Tsumoto.

Applicants note the previous arguments relating to the prior rejections over Sharpe, Barnhill, Kasabov, Wu and Tsumoto are "moot in light of the new grounds of rejection." See Office Action page 8 first paragraph. Applicants consider this to be an admission that the rejection over combination of Sharpe, Barnhill, Kasabov, Wu and Tsumoto has been overcome.

In the instant Office Action, Wu and Barnhill are removed from consideration and Kittler and Krogh are added. Thus, to sustain a rejection under 35 U.S.C. 103(a), Kittler and Krogh must supply the missing elements not present in Sharpe, Kasabov or Tsumoto. As will be pointed out below, Applicants respectfully submit that the references, alone or in combination, do not teach all elements of the instant claims.

### III. Rejections under 35 U.S.C. §103(a)

Claims 1-6, 8-17, 19, 20, 21 and 22 stand rejected under 35 U.S.C. 103(a) as obvious over the combination of over Sharpe in view of Kasabov, Kittler, and Krogh.

Applicants respectfully submit that the teachings of Sharpe, Kasabov, Kittler and Krogh are insufficient to render Applicants independent claims obvious. The differences between the prior art and the instant claims include the following steps in Claims 1, 3, and 23, and all claims depending from those claims:

"calculate Combined Class A output =  $(C1/classA \times \beta_1) + (C2/classA \times \beta_2)$ ;

calculate Combined Class B output =  $(C1/classB \times (1 - \beta_1)) \times (C2/classB \times (1 - \beta_2));$ 

calculate Combined Class A/Class B output = (Combined Class A output x  $\alpha$ ) + (Combined Class B output x  $(1 - \alpha)$ )"

The Examiner has not provided a sound, reasoned explanation of exactly how the teachings of the cited references produce the steps of the Claims 1, 3, and 23. Applicants submit that the above steps are not explicitly disclosed in any cited reference. Further, Applicants submit that the cited references in combination do not explicitly disclose all elements of the instant claims. Although the cited references teach certain general methods for data analysis, and Kittler provides a motive to provide a combined classification system, for such a combination to support a *prima facie* case for obviousness, the references must teach either explicitly or inherently, *all elements* of the claim. Applicants submit that this has not been done.

A *prima facie* case for obviousness based on inherency requires that the missing element must *always* and necessarily be present in the cited references. The Examiner has not indicated exactly how the missing processing steps:

"calculate Combined Class A output =  $(C1/classA \times \beta_1) + (C2/classA \times \beta_2)$ ;

calculate Combined Class B output =  $(C1/classB \times (1 - \beta_1)) \times (C2/classB \times (1 - \beta_2));$ 

calculate Combined Class A/Class B output = (Combined Class A output x  $\alpha$ ) + (Combined Class B output x  $(1 - \alpha)$ )"

of Claims 1, 3, and 23 of the instant application are necessarily and always present in the disclosures of Sharpe, Kasabov, Kittler, and Krogh either alone or in any combination. Therefore, Applicants respectfully submit that no *prima facie* case for obviousness has been established.

The Examiner is cordially invited to submit a Declaration as a person of ordinary skill, pointing out exactly how the cited references inherently disclose the claimed process steps.

For the reasons set forth more fully below, Applicants respectfully submit that the rejections under 35 U.S.C. §103(a) are improper and urge the Examiner to withdraw the rejections and to issue a Notice of Allowance.

Claim 18 stands rejected under 35 U.S.C. 103(a) over the combination of Sharpe, Kasabov, Kittler, Krogh and further in view of Tsumoto.

Applicants respectfully submit that Tsumoto does not explicitly or inherently teach the processing steps:

"calculate Combined Class A output =  $(C1/classA \times \beta_1) + (C2/classA \times \beta_2)$ ; calculate Combined Class B output =  $(C1/classB \times (1 - \beta_1)) \times (C2/classB \times (1 - \beta_2))$ ;

calculate Combined Class A/Class B output = (Combined Class A output x  $\alpha$ ) + (Combined Class B output x  $(1 - \alpha)$ )"

of the instant claims, and therefore does not provide the missing subject matter needed to support a *prima facie* case for obviousness. The Examiner has not provided any reasoning that points to how the teaching of Tsumoto provides the missing process steps noted above in Claims 1, 3, or 23. Applicants note that Claim 18 depends from Claim 1, and therefore contains all of the elements of Claim 1.

In the prior REPLY, Applicants comments regarding the *prima facie* case were directed not at a motive to combine references, but to the *lack of sufficient teaching* in the references to be combined. See Office Action, page 8, lines 12-13. However, under KSR v. Teleflex and Graham v. John Deere (supra), more is required to sustain a rejection for obviousness than merely providing a motive to combine references. In particular, even if a motive to combine references is found, there must be explicit or inherent teaching of all elements of the claim.

Applicants respectfully submit that even if there is a motive to combine the cited references together, there are still missing elements as noted above for Claims 1, 3, and 23 that are not disclosed either explicitly or inherently in the combination of cited references. Applicants respectfully submit that this "gap" between the prior art and the invention as claimed has not been overcome without hindsight reconstruction based on the disclosure of the instant application.

## IV. Information Disclosure Statement

The Examiner stated that the Information Disclosure Statement filed 04/13/2009 "fails to comply with 37 C.F.R. 1.98(2), because no copies of the Roland Eils and Jason Weston foreign patent documents were provided." See Office Action page 2.

Applicants herewith provide a new Information Disclosure Statement containing the references requested.

#### V. Conclusions

Applicants respectfully submit that the cited references, either individually or in any combination do not teach all limitations of the independent Claims 1, 3, and 23 or any claim depending from Claims 1, 3, or

- 23. In particular, none of the references disclose, either explicitly or inherently all elements of Claims 1, 3, or
- 23. Thus, there is a "gap" between the cited references and the claimed invention.

This REPLY is being filed within four (4) months of the mailing date of the Office Action, and a Petition for Extension of Time for one (1) month and the required fee are enclosed.

Applicants therefore respectfully request that this amendment be entered into the application, that the Examiner reconsider the current rejections, find the claims allowable, and issue a Notice of Allowance.

The Commissioner is authorized to deduct from or refund to Deposit Account No: 50-4089 any fee in connection with this REPLY.

If the Examiner believes that a telephonic interview with the undersigned would be useful in moving this application forward, the undersigned cordially invites such an interview.

Respectfully submitted,

Date: January 20, 2010

By:

D. Benjamin Borson, Ph.D.

Reg. No. 42,349

Customer No. 66936 Borson Law Group PC 1078 Carol Lane, Suite 200 Lafayette, California 94549-4760 Tel: (925) 310-2060